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1 IN THE UNITED STATES DISTRICT COURT 2 FOR THE NORTHERN DISTRICT OF OKLAHOMA 3 STATE OF OKLAHOMA, ex rel. 4 W. A. DREW EDMONDSON, in his capacity as 5 ATTORNEY GENERAL OF THE STATE OF OKLAHOMA and 6 OKLAHOMA SECRETARY OF THE ENVIRONMENT C. MILES TOLBERT, 7 in his capacity as the TRUSTEE FOR NATURAL RESOURCES FOR THE STATE OF OKLAHOMA, 9 Plaintiffs, 10 Vs. No. 05-CV-0329 GKF-SAJ 11 TYSON FOODS, INC., TYSON POULTRY, INC., TYSON 12 CHICKEN, INC., COBB-VANTRESS, INC., AVIAGEN, INC., CAL-MAINE 13 FOODS, INC., CAL-MAINE FARMS, INC., CARGILL, INC., CARGILL 14 TURKEY PRODUCTION, LLC, GEORGE'S, INC., GEORGE'S FARMS, 15 INC., PETERSON FARMS, INC., SIMMONS FOODS, INC., and WILLOW 16 BROOK FOODS, INC., 17 Defendants. 18 19 20 VIDEOTAPED DEPOSITION OF JAMES CRUTCHER, M.D. 21 TAKEN ON BEHALF OF THE DEFENDANTS ON DECEMBER 20, 2007, BEGINNING AT 9:38 A.M. 22 23 IN OKLAHOMA CITY, OKLAHOMA 24 VIDEOTAPED BY: STESHA FERGUSON 25 REPORTED BY: DANIEL LUKE EPPS, CSR, RPR

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1 **APPEARANCES:** 2 3 Appearing on behalf of the PLAINTIFFS: 4 5 DAVID P. PAGE, Attorney at Law 6 Bell Legal Group 7 P.O. Box 1769 8 Tulsa, Oklahoma 74101 9 (918) 398-6800 dpage@edbelllaw.com 10 ROBERT A. NANCE, Attorney at Law 11 Riggs, Abney, Neal, Turpen, Orbison & Lewis 12 5801 N. Broadway, Suite 101 Oklahoma City, Oklahoma 73118 13 (405) 843-2913 rnance@riggsabney.com 14 15 Appearing on behalf of the DEFENDANTS TYSON FOODS, INC., TYSON POULTRY, INC., TYSON CHICKEN, INC. & 16 COBB-VANTRESS, INC.: 17 ROBERT GEORGE, Attorney at Law Kutak Rock 18 The Three Sisters Building 214 West Dickson Street 19 Fayetteville, Arkansas 72701 (501) 975-3000 20 robert.george@kutakrock.com 21 Appearing on behalf of the DEFENDANT PETERSON FARMS: 22 A. SCOTT MCDANIEL, Attorney at Law 23 McDaniel, Hixon, Longwell & Acord 320 South Boston Avenue, Suite 700 24 Tulsa, Oklahoma 74119 (918) 382-9200 25 smcdaniel@mhla-law.com

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1 zoonotic disease very common in the animal 2 kingdom. Again, humans more often can be a 3 carrier, a long term carrier of salmonella than 4 with campylobacter, again, to my recollection. 5 Can campylobacter be a foodborne 0 6 disease? 7 Α Yes. 8 Is that the most common source that 9 you see in the health department is a foodborne 10 disease? I would think so. That food is a 11 Α 12 medium for transmission is the more common, I 13 would think that Dr. Bradley this afternoon may 14 be able to shed more light on that. 15 What about salmonella? That can 16 also be a foodborne disease? 17 Α Yes. 18 Is that the most common source that 19 the health department sees of salmonella is a foodborne disease? 20 21 I would, again, think so as opposed 22 to waterborne. 23 Yes, sir. Q 24 I would think the foodborne route, Α 25 yes, is the more commonly identified, again, to

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1 the best of my knowledge. 2 Grandma's bad deviled eggs at the 3 picnic? 4 There you go. Α 5 Yeah. What about staphylococcus? Q 6 Right. Α 7 Can that also be foodborne? Q 8 Α Yes. 9 Is that the most common source that Q 10 the health department sees is staph infections as a foodborne disease? 11 12 You know, I really couldn't tell 13 Staph is a more common organism in the 14 environment. Humans carry it, you know, on their 15 skin, on their hands, and their nose. I really 16 couldn't say, but foodborne is the most common we 17 see it. I'd have to say I'm not sure. 18 Is there a good chance I've got a 0 19 staph bacteria on my hands right now? 20 Uh-huh. Sure. Α Okay. Q 22 Α Or that some of us do in this room 23 anyway. 24 MR. GEORGE: Don't name names, 25 please.

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And why is that particular strain Q the reported strain?

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Well, it's a type. There's many, Α many types of E. coli bacteria. This is one that has been identified as a more serious threat to human health in the last many years associated initially with undercooked hamburger meat, and especially because it has the potential to cause severe disease in children. It can, again, be a self-limited diarrheal disease in adults most of the time, but it can cause a more serious disease called hemolytic uremic syndrome in children which can either kill them or leave them with fairly severe deficits as a result of the infection, so it gets more attention.

And what does EHEC mean?

Α Enterohaemorrhagic E. coli.

Okay. Is that something different 0 from zero -- 0157:H7?

Well, O157:H7 is a type of Α enterohaemorrhagic E. coli. 0157:H7 is, again, just a molecular biological designation of the many types of these organisms.

But when this particular column says "Or Other EHEC" --

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are there people who I'm calling field investigators who go out and ask questions, gumshoes?

A In the county health departments there are what's called communicable disease nurses. They're really not epidemiologists, but they are communicable disease nurses that go by protocols to collect data, and then the state epidemiologists really focus at the state health department and do not get involved in every, you know, disease that's reported to us. Generally only when there is an outbreak or a disease of concern arises, whatever that reason for that is.

Q Since you've been involved with the Oklahoma Health Department, has there ever been a, quote, "outbreak," end quote, associated with the Illinois River with which the health department has been concerned?

A Not that I'm aware of.

Q And since you've been with the health department, has there ever been -- what's the second word you used?

A An increase in incidence of disease or --

Q Yeah. Has there ever been something

like that in the Illinois River Basin with which the health department has been concerned?

A Not that I'm aware of. An outbreak, there's not been an outbreak or a disease -- elevated levels of disease that have occurred as a result of, you know, being exposed to the Illinois River that I'm aware of.

Q All right, sir. So let me return to this issue and see if I can understand what happens. Let's assume -- I'm going to use Jack In The Box because it just happens to be something I remember. Poor Jack In The Box. I don't know if they exist anymore.

A I don't know. I haven't seen any.

Q I don't see them for some reason, but if you had that kind of a Jack In The Box outbreak, whether that was salmonella or E. coli, whatever it was, are there people that you send out into the field to start interviewing these people who have the disease so that you can actually come to the conclusion that was related to Jack In The Box at 13th and Elm?

A Yes.

Q Okay. Let's take a break.
THE VIDEOGRAPHER: We are off the

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     people aware of the authority that we have that
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     is given to us to do so. Generally that works.
3
     If it doesn't, then, you know, we have to proceed
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     through stronger forces ultimately, you know,
5
     utilizing court power if necessary.
6
                   And to your knowledge, Doctor, has
            Q
7
     there ever been a health advisory, my words, and
8
     I want you to tell me if that's the wrong
9
     terminology, issued by the health department in
10
     regard to the safety of the waters of the
     Illinois River or its tributaries?
11
12
            Α
                   Not to my knowledge.
13
                   All right, sir.
            0
14
                   Not from the health department.
            Α
15
                         Well, I've got to ask you
            Q
16
     about that answer. By anybody else to your
17
     knowledge?
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                   Not to my knowledge, but I just
            Α
19
     wanted to say the health department hasn't.
20
     Whether the Department of Environmental Quality
21
     or Water Resources Board has, I can't say.
22
     health department has not.
23
            Q
                   All right. Did I use the right
24
     term, health advisory?
25
            Α
                   Health advisory, yeah.
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Doctor?

A Well, from looking at this graph, can I say that there is evidence that there is a direct relationship between the application of chicken litter in the Illinois River Watershed and in campylobacteriosis? No, I can't say that.

Q Okay. That's my question. Let me hand you what's been marked as C-4 which is the same exercise with E. coli O157:H7.

(Exhibit C-4 marked for identification)

A Uh-huh.

Q And I have the same question, of course, and that is given the information on this bar graph, again, utilizing the Oklahoma report and statistics for the four counties through which the Illinois River and its tributaries flow, will you agree with me that these statistics have no utility in attempting to prove a cause and effect relationship between the land application of chicken litter in the Illinois River Basin and incidences of E. coli?

MR. PAGE: Object to the form.

THE WITNESS: Well, there's no evidence to suggest that there is a direct cause and effect relationship between those two -- that

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variable and that outcome. Same breath, I can't say for both of these that I can say that this is proof that there isn't an association or that there isn't -- that some of these cases were caused by that. So I can't conclude either way that it either confirms or precludes that outcome from occurring. There's not evidence to show that there is a direct cause and effect relationship.

Q (BY MR. ELROD) Okay. I think what you're saying, and I'm going to ask you if you agree with this, that these statistics standing alone are useless in terms of determining whether there is a cause and effect relationship between the land application of chicken litter in the Illinois River Basin and incidences of E. coli?

A I'm not going to say useless. I'm going to say that they do not give you the definitive answer that you want. As we do in many, the preliminary evidence can be suggestive of a possible association that requires further investigation.

Q Let me hand you what's been marked as C-5 which is the same exercise, but in regard to salmonellosis, and the same question to you,

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next sentence says, "Several geographic clusters of campylobacteriosis occurred during the summer months in Cleveland, Kingfisher, LeFlore, Oklahoma, and Tulsa Counties." Α Right. Do you have a recollection of that Q in 2004, sir? Α No, I do not. Do you know, sir, if there was -- if Q there's any explanation why there were clusters of campylobacteriosis in these five counties? Α No, I do not. What does -- and you've used the word "cluster" yourself today. Tell me how you define -- what would constitute a cluster of a disease? Geographic or temporally focused increased number of cases that were occurring. So over a short period of time or in a certain geographic area, you see a number of cases that occur that make you think that there may be some common association to them.

Q When your department receives the data from the counties, is that part of the mission is to be analyzing that data to identify

highest incident rate?

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1 whether any clusters exist? 2 Α Yes. 3 And I believe based upon the 4 questions you answered a few moments ago that the 5 department has not identified any cluster at any 6 time related to campylobacter within the Oklahoma 7 counties in the Illinois River Watershed, is that 8 correct? 9 None that I am aware of. Again, Α 10 Dr. Bradley may have additional information, but 11 I am not aware that there have been specific 12 outbreaks associated there. 13 Sir, would your answer be the same 14 for salmonellosis? 15 Α Yes. 16 And for E. coli? Q 17 Α Yes. 18 The next paragraph on that page, 19 Doctor, it says, "In 2004, cases ranged in age 20 from one day to 92 years with a median age of 28 The next sentence, "Infants and young 21 22 children had the highest incidence of 23 campylobacter infections." Doctor, can you 24 explain why infants and young children had the

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abiding by the regulations that attempt to assure safe food practices.

Q And I'm going to show you here in a minute some of these inspection reports, and I've noticed that there are a number of them have to do with temperature?

A Right.

Q Either being cold enough or hot enough. Why is the temperature of the food or the raw product a condition that the health department is interested in?

A Well, it either prohibits the replication of organisms in foods that are being stored or it kills those during the cooking prior to serving to patrons.

Q These diarrheal organisms that we've talked about today, campylobacter, salmonella, and E. coli, all three of them can be found in, for instance, raw meat or poultry, correct?

A Yes.

Q Is that one of the reasons that temperatures are to be maintained at a certain elevated level to kill those organisms before they're consumed by human beings?

A Yes.

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1	second page of the exhibit, and go down to the
2	inspection at the Cave Springs School Cafeteria
3	on May 13, 2005. Have you found that?
4	A Yes.
5	Q What is the very first deficiency
6	that you see there?
7	A Cross-contamination of raw/cooked
8	foods/other.
9	Q Now, is that an inspection criteria
10	that if violated creates the risk of foodborne
11	illness?
12	A Potentially, yes.
13	Q Deficiencies that indicate that the
14	food service was not maintaining adequate
15	temperatures or holding times, would that
16	increase the risk of foodborne illness?
17	A Potentially it could result in that.
18	Q All right. These inspections
19	illustrate that for a resident of Adair County
20	there are lots of places, there are lots of
21	potential places from which you could contract
22	campylobacteriosis, correct?
23	A It can be contracted through
24	restaurants. If appropriate procedures are not
25	followed, it could occur through restaurants.

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1 The same is true for preparing and Q 2 handling foods at home, correct? 3 Α Yes. 4 If you were to offer a general 5 statement about foodborne diarrheal conditions, 6 do you have a belief that they are most commonly 7 a product of home food handling procedures or 8 institutional food handling procedures? 9 I don't know the answer to that. Α 10 would think probably home might be a higher risk. 11 I think people probably don't have the same level 12 of training. I would think that, although, you 13 know, there's a lot more food handling obviously 14 that goes on in restaurants, so I'm kind of 15 speculating there. 16 In the case of campylobacteriosis, 17 has there been any epidemiological studies 18 performed to identify a dose response? 19 I am not aware of that, but I just Α 20 have to say I don't know. How about for salmonellosis? 21 Q 22 Α I'm sure with any of these there 23 have been, but I can't cite them for you. 24 How about E. coli? Q 25 Α Same answer.

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1	DIRECT EXAMINATION
2	BY MR. GEORGE:
3	Q Dr. Crutcher, my name is Robert
4	George, and you and I have had the pleasure of
5	meeting today for the first time, correct?
6	A Yes.
7	Q Okay. You've been with the
8	department if I understand it correctly, the
9	department of health for 12 years now?
10	A Yes.
11	${f Q}$ Do you agree, sir, that the
12	department of health is the lead agency in the
13	state of Oklahoma responsible for protecting
14	human health?
15	A Yes.
16	Q When other state agencies in your 12
17	years of experience in working in state
18	government identify threats to human health, is
19	it common for those agencies to involve the
20	department of health in either investigating or
21	addressing threats to human health?
22	A Yes.
23	Q Okay. In your 12 years at the
24	department of health, has anyone at any other
25	state agency asked you or your department to

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investigate or assist in the investigation of a human health risk posed by bacteria levels in surface water or ground water in the Illinois River Watershed?

A Over the last year, I mean, since the -- I guess the beginning of this issue, we have been involved with the Secretary of the Environment in his role and representatives from the Department of Environmental Quality.

Q Let me refine my question a bit, sir. Prior to the initiation of this lawsuit, had the department of health been requested by any other state agency to investigate or assist in the investigation of a human health risk posed by bacteria levels in surface water or ground water in the Illinois River Watershed?

A Not to my knowledge.

Q And, in fact, sir, is it true that your department was not asked to conduct such an investigation immediately prior to the filing of this lawsuit?

A Not a more in-depth -- no. Prior to, I mean, we would ask for information at the time that this began and we were called in to participate, but prior to that, you're saying

were we asked to do anything? No.

Q I'll state the question a little more clearly. It was kind of awkward. Did I understand correctly that your agency was not consulted about claims of threats to human health prior to the filing of this lawsuit?

A That's true.

Now, if I understand your testimony thus far, Dr. Crutcher, your department regularly receives at least on a yearly basis public health data about disease incidence from counties throughout the state of Oklahoma, is that correct?

A We receive reporting information from all over the state primarily from, again, hospitals, physicians, and in laboratories. The information does not originally come to us from county health departments. It comes from those entities throughout the state in the respective counties.

Q Given the reports that have been discussed here today, do I understand correctly that after that data is received from all of those various sources, that one of the things the department of health does is organize it by

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112 1 county? 2 Α Yes. 3 Okay. And the county data which 0 4 your department is the custodian of in terms of 5 public health data includes reported incidences 6 of campylobacteriosis, E. coli, and 7 salmonellosis, is that correct? 8 Α Yes. 9 And included in the county data Q 10 would be information from the counties of Adair, 11 Cherokee, Delaware, and Sequoyah Counties, 12 correct? 13 Yes. Α 14 Now, someone at your department, I 15 assume, you correct me if I'm wrong, actually 16 reviews that data, countywide data, to identify 17 trends or patterns or possible alarming 18 incidences, is that correct? 19 Yes. Α 20 Okay. Q 21 Periodically that is done. Α 22 create an annual report so it may be done 23 annually where that's looked at. 24

If someone in your department

perceives a statistically significant elevation

in a disease incidence in a particular county, do
I understand that your department has both the
authority and the obligation to investigate those
statistically significant elevations in disease?

A Yes. I mean, there's no firm guideline as to when that has to take place. It's certainly within -- we have a bit of latitude to, you know, use the knowledge that we have to determine whether we think it is a significant increase in disease to determine whether we launch into an investigation.

Q Okay. In your 12 years at the department of health, has your department ever taken any action that you're aware of based on a belief that Adair, Cherokee, Delaware, or Sequoyah Counties were experiencing a statistically significant elevated rate of campylobacteriosis?

A No.

Q Okay. In your 12 years at the department, has the department of health ever taken any action that you're aware of based upon a belief that Adair, Cherokee, Delaware, and Sequoyah counties were experiencing a statistically significant elevated rate of

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1 salmonellosis? I have a hard time saying that. 2 Α No. 3 If I ask the same question with Q 4 regard to E. coli, would your answer be the same? 5 Α Yes. 6 When information is available to 7 your department, sir, that suggests an imminent 8 and substantial threat to human health, does your 9 department regularly issue warnings or public 10 advisories? 11 Yes. Α 12 Q Okay. I noticed in looking through 13 some materials from your website that I've put 14 before you that your department apparently uses 15 its website as you would imagine as a 16 communication vehicle and as a result of that 17 posts its notices on the website, correct? 18 Α Yes. 19 And I won't ask you to do this. I 0 20 went through just for 2007 to see how prolific 21 your department had been in issuing notices and I 22 came to about 150. Do you have any reason to

disagree with that range in terms of the extent

the public of health risks?

to which your department issues notices informing

website.

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A Notices through the media primarily.

Q I only counted the ones on the

A Yeah. That's certainly within the realm of possible, yeah.

Q Okay. And I've put in front of you not just 2007, but prior years going back to 2000. It looks to me as though that's a pattern in terms of communication within your department for at least the last seven years, correct?

A Yes.

Q Okay. In your 12 years at the department, are you aware of the department of health issuing any warnings or public advisories suggesting or informing the public to avoid body contact with the waters in Tenkiller, the Illinois River or its tributaries due to a belief that those waters contained dangerous levels of bacteria?

A No.

Q In your 12 years at the department of health, are you aware of any warning or public advisories issued by your department advising the public that ground water in the counties that comprise the Illinois River Watershed are not

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1 safe to drink due to a belief that those waters 2 contain dangerous levels of bacteria? 3 Not to my knowledge. Α 4 What is the RHINO system? Is that 5 acronym familiar to you? 6 Yeah. It's a reporting system for Α 7 infectious diseases. 8 Q Who receives the reports on the 9 RHINO system? 10 The communicable disease area, Lauri Α 11 Smithee and the people that do the infectious 12 disease investigations. 13 Is the RHINO system a vehicle 14 through which the department of health exchanges 15 information with physicians and health care 16 providers? 17 I probably should -- I think Kristy 18 Bradley can answer that question. I can't tell 19 you the specifics of communication pathways 20 there. 21 That's fine. If the department of 0 22 health were aware of an imminent and substantial 23 threat to human health from exposure of 24 individuals to dangerous levels of bacteria in 25 the waters in Lake Tenkiller, the Illinois River